

CLAIMS

1. A binding processing apparatus comprising:

a punching device;

a sheet table on which sheets of paper punched by the
5 punching device are stacked;

a binding mechanism section in which a division ring type
binder is attached to punch holes of one set of sheets of paper
stacked on the sheet table;

a first positioning mechanism for positioning the sheets
10 of paper in a sheet conveyance direction; and

a second positioning mechanism for positioning the sheets
of paper in a direction perpendicular to the sheet conveyance
direction,

wherein the first and the second positioning mechanism
15 position the sheets of paper so that the punch holes on the
sheets of paper agree with a binding piece at a time of binder
attaching processing.

2. The binding processing apparatus according to claim 1,
20 wherein the first positioning mechanism includes a sheet forward
end position regulating plate capable of being retracted and
provided at a forward end portion of the sheet table as a reference
of aligning the forward end portions of the sheets of paper,
and

25 after one set of sheets of paper is positioned, the sheet
forward end position regulating plate is retracted and the

one set of sheets of paper are sent to the binding mechanism section.

3. The binding processing apparatus according to claim 1,
5 wherein the second positioning mechanism is capable of being raised and retracted from the sheet table.

4. The binding processing apparatus according to claim 1, further comprising:

10 an upper side slide pin capable of descending downward from an upper position of the sheet table to the sheet table, wherein the upper side slide pin is inserted into a punch hole formed on the sheets of paper on the sheet table so as to position the sheets of paper on the basis of the punch hole.

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5. The binding processing apparatus according to claim 4, further comprising:

a movable clamp for clamping the sheets of paper after the sheets of paper have been positioned by the upper side
20 slide pin, wherein the slide pin is retracted and the sheets of paper are sent to the binding mechanism section after the sheets of paper are clamped.

6. The binding processing apparatus according to claim 5,
25 wherein after the upper side slide pin positions the sheets of paper and the movable clamp clamps the sheets of paper,

the slide pin is retracted and the movable clamp is released so as to prepare for a supply of the next sheets of paper.

7. The binding processing apparatus according to claim 1,
5 further comprising:

a lower side slide pin capable of ascending upward from a lower portion of the sheet table; and

an upper side slide pin,

wherein the sheets of paper are positioned on the basis
10 of the punch holes when the upper side and the lower side slide pin are inserted into the punch holes formed on the sheets of paper.

8. The binding processing apparatus according to claim 7,
15 further comprising:

a movable clamp for clamping the sheets of paper after the sheets of paper are positioned by the upper and the lower side slide pins,

wherein the upper and the lower side slide pins are retracted
20 and the sheets of paper are sent to the binding mechanism section, after the sheets of paper are clamped.

9. The binding processing apparatus according to claim 8,
wherein the slide pin is retracted and the movable clamp is
25 released so as to prepare for a supply of the next sheets of paper, after the upper side slide pin positions the sheets

of paper and the movable clamp clamps the sheets of paper.

10. The binding processing apparatus according to claim 1, further comprising:

5 a sheet table moving mechanism for advancing the sheet table to the binding mechanism section and for retracting the sheet table from the binding mechanism section; and

a sheet table rotating mechanism for rotating the sheet table from a position opposed to the binding mechanism section
10 so as to discharge the sheets of paper.

11. The binding processing apparatus according to claim 1, further comprising:

a booklet discharge mechanism for discharging a booklet
15 which has been subjected to the binding process.

12. The binding processing apparatus according to claim 11, wherein the booklet discharge mechanism discharges booklets, while the booklets are successively and alternately being shifted
20 from each other in a lateral direction so that the rings of the binder attached to the next row of booklet can enter spaces formed between the rings of the binder attached to the front row of booklet.

25 13. The binding processing apparatus according to claim 11, wherein the booklet discharge mechanism successively shifts

a falling position of the booklet in a longitudinal direction so that the ring binders of the booklets can not be overlapped on each other.

5 14. The binding processing apparatus according to claim 11, further comprising:

a container for receiving booklets discharged after the completion of binding processing, wherein the container includes partitions for dividing the discharged booklets one by one,
10 and the booklet discharge mechanism discharges the booklets one by one into the spaces divided by the partitions.

15 15. The binding processing apparatus according to claim 1, further comprising:

a container for receiving booklets discharged after the completion of binding processing;

a plurality of vertical type slats respectively provided on the right and the left in the container; and

a longitudinally moving mechanism of moving the vertical
20 slats,

wherein the right and the left vertical type slats are synchronously driven, and the booklets, which are discharged after the completion of binding processing, are accommodated in the spaces, which are divided by the vertical type slats,
25 one by one.